

## Abstract

Disclosed is a method for manufacturing a heating pad using an electrically conducting polymer suitable for use in maintaining patient' body temperatures. A cloth made of a synthetic fiber or a natural fiber is treated in a bath containing dopants, distilled polymerizable monomers, and an oxidizer under such a high temperature and pressure that an electrically conducting polymer is chemically formed on the cloth. After being washed, the cloth is covered with a patterning sheet such that electrical polymerization is conducted to grow a polymeric coating according to the pattern of the patterning sheet. The heating pad has a resistance of  $10^{-2}$ - $10^2$   $\Omega$ . To the heating pad, a temperature sensor and controller is provided for safely maintaining patient' body temperatures.

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